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Adaptive and Adaptable Learning

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Preface

The 11th edition of the European Conference on Technology-Enhanced Learning (EC-TEL) was held in Lyon (France) during September 13–16, 2016. This volume collects all peer-reviewed contributions that were included in the exciting program of this year’s conference.

In the 11th year of its existence, EC-TEL has become the major interdisciplinary venue for the community of technology-enhanced learning (TEL) researchers in Europe and worldwide. Furthermore, EC-TEL is a shared opportunity for researchers, practitioners, educational developers, and policy makers to address current challenges and advances in the field. Since 2006, EC-TEL has provided a reference point for relevant state-of-the art research in TEL; first in Crete (Greece, also in 2007), and then in Maastricht (The Netherlands, 2008), Nice (France, 2009), Barcelona (Spain, 2010), Palermo (Italy, 2011), Saarbrücken (Germany, 2012), Paphos (Cyprus, 2013), Graz (Austria, 2014), and Toledo (Spain, 2015).

In these uncertain and turbulent times, it is essential for individuals and organizations continually to adapt and change. The theme of EC-TEL 2016 was “Adaptive and Adaptable Learning.” It highlighted developments in learning systems that adapt to the needs, interests, and abilities of each learner, toward a vision of learning that is personalized yet social. Effective technology enhanced learning must also be adaptable – resilient, flexible, and sustainable to meet rapidly changing needs, technologies, contexts, and policies. The conference explored how research in collaborative and personalized learning could be combined with new developments in analytics, interaction design, social, mobile and ubiquitous technologies, and visualization techniques, to enhance learning for everyone.

Drawing on the core TEL disciplines of computer science, education, psychology, cognitive science, and social science, research contributions presented at EC-TEL 2016 addressed topics such as adaptive and adaptable learning, collaborative knowledge building, motivation and engagement, collaborative learning, game-based learning, lifelong learning, intelligent learning systems, recommender systems, learning design, learning analytics, assessment for learning, social computing and social media, massive open online courses (MOOCs), and wearable and pervasive technologies.

This 2016 edition was again extremely competitive, given the high number of submissions generated. A total of 148 valid paper submissions were received. Of these, 102 were full papers. All submissions were assigned to at least three members of the Program Committee (PC) for review. One of the reviewers had the role of leading reviewer and initiated a discussion in the case of conflicting reviews. All reviews as well as the discussions were checked and discussed within the team of PC chairs, and additional reviews or meta-reviews were elicited if necessary. From this process, 26 submissions were selected as full papers (resulting in an acceptance rate for full papers of 25 %). Additionally, 23 papers were chosen as short papers, eight as demonstrations, and 33 as posters. Table 1 shows the detailed statistics.

Table 1. Acceptance rate in different submission categories

Submitted as		Published as			
		Full Paper	Short Paper	Poster Paper	Demo Paper
Full Paper	102	26	16	21	2
Short Paper	31		7	8	
Poster Paper	9			4	
Demo Paper	6				6
Sum	148	26	23	33	8

The dedicated work of all the PC members as well as the additional reviewers must be acknowledged. Only with their help was it possible to deal with the high number of submissions and still meet all deadlines as originally planned.

Keynote presentations completed this competitive scientific program. Pierre Dillenbourg from the EPFL Center for Digital Education, Switzerland, gave a presentation on “How Does TEL Research Inform the Design of Educational Robots?” and Vincent Aleven from Carnegie Mellon University presented on “Adaptivity in Learning Technologies: Kinds, Effectiveness, and Authoring.” A keynote from the European Commission covered policy aspects of technology enhanced learning.

A plenary panel session was held on the theme of the conference – Adaptive and Adaptable Learning. Two invited panelists from the artificial intelligence and education community, Benedict du Boulay and Rose Luckin, joined the researchers from the TEL community.

Demonstrations and posters had a pronounced role in the conference program. A plenary session was organized as a “TEL demo shootout” in which the demonstrations were presented to arouse the audience’s curiosity and highlight the unique aspects. Later on, the demonstrations were shown in action, giving participants the opportunity for hands-on experience, sparking discussions between researchers, practitioners, and educational developers, providing a basis to vote for the best demo. A plenary session was dedicated to an exhibition of posters, to foster discussion about work in progress and research issues. Representatives from the industry also presented and discussed their contributions to the field in the industry track.

The TEL community proposed and organized a set of stimulating workshops as part of the conference. In all, nine workshops were selected from the proposals and were organized. Some of them continue a series of well-established workshops on motivational and affective aspects in TEL and on awareness and reflection in TEL. Others, like Pedagogical Grounded Learning Analytics Design, were new for 2016. A doctoral consortium was organized concurrently with the workshops, which provided an opportunity for PhD students to discuss their work with experienced TEL researchers.

We would like to thank the many contributors for creating a stimulating conference of high quality. These include foremost the authors, the PC members and reviewers, and the conference chairs, who all contributed to the program. We would also like to thank an enthusiastic and dedicated local organization team who made EC-TEL

a smooth and memorable experience. The conference was partially supported by the European Association of Technology-Enhanced Learning (EATEL), Springer, and EasyChair.

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